

# MANUFACTURE OF COPPER ALLOY AND COPPER ALLOY MATERIAL FOR RADIATOR PLATE

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## Abstract

PURPOSE: To obtain the Cu alloy material having excellent strength, stress corrosion cracking resistance and solderability and suitable for a radiator plate by subjecting a hot rolled sheet of a Cu alloy contg. specified amounts of Zn and Sn or furthermore contg. Ni, Si and other elements to cold rolling under specified conditions.

CONSTITUTION: An ingot of a Cu alloy contg., by weight, 1 to 5% Zn and 0.01 to 3% Sn, or furthermore contg. 0.1 to 5% Ni and 0.01 to 2% Si independently or compositely or moreover contg. total 0.001 to 2.0% of one or more kinds among Al, Fe, Pb, As, Sb, B, Co, Cr, Mn, Te, In, Ti, Zr, Hf, Be, Mg, Ag, Cd and Ge, and the balance Cu is repeatedly subjected to hot rolling, cold rolling and annealing into a cold rolled sheet, which is thereafter subjected to final annealing, e.g. at 500 to 800 deg.C for about 15min and is furthermore to cold rolling at 3 to 20% reduction ratio, so that the Cu alloy sheet having <=15μm grain size and suitable as a radiator plate material can be manufactured.

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